



## DEPRESSION IN ACNE VULGARIS; A STUDY IN TERTIARY CARE HOSPITAL SETTING

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**INTRODUCTION:** Acne vulgaris is a chronic inflammatory disorder of pilo-sebaceous glands, which most commonly affect face and trunk. It is most prevalent in adolescent age group. It has been seen that acne can have profound social and psychological effects which are not necessarily related to its clinical severity. **Objectives:** To determine the frequency and severity of depression among acne patients attending the outpatient dermatology department, of a tertiary care hospital. **Study Design:** Descriptive study. **Place & Duration of Study:** Department of Dermatology, Bahawal Victoria Hospital, Bahawalpur from September, 2013 to November, 2013. **Subjects & Methods:** Informed written consent was taken from patients for the study, seventy patients of acne, diagnosed by consultant dermatologist were inducted. The severity of acne was determined by Global Acne Grading System. Both genders were included, the age range was from 16 to 40 years. Those patients with concomitant dermatological, psychiatric diseases and those receiving systemic isotretinoin were excluded. The patients fulfilling inclusion criteria were assessed for depressive symptoms and Hamilton Depression rating scale was administered for severity of depression. **Results:** 70 patients were included in the study, among them 14 (20%) were male and 56 (80%) were females. Most of the acne patients were of the age 16-20 years [24 (34.3%)]. Mild depression was seen in 26% patients (18%-were females and 8%-males). Severe depression was present in 14% of patients, among which 11% were females & 3% were males. Very severe depression was noted in 18% patients among which 16% were female and 2% were males. **Conclusions:** it can be concluded that Dermatologists should pay due attention to the psychological/ mental state of the patient while clinically evaluating and treating patients suffering from acne vulgaris

**Key words:** Acne, Depression, Severity of Acne vulgaris.

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### INTRODUCTION

Acne vulgaris is a chronic inflammatory disorder of pilo-sebaceous glands, characterised by comedones, papules, pustules and nodules. Most commonly affected sites are face and trunk. It commonly occurs in adolescent age group.<sup>1</sup> Although acne is not incurable or life threatening disease but it can significantly affect the psychological health of the sufferer. It has been established that at least 30% of the dermatology patients suffer from significant psychiatric comorbidity. Patients suffering from acne show significant negative psychological effects which are not related to its clinical severity. Even mild acne can have significant impact on social skills and may lead to lack of confidence, and low self-esteem. It was found in various studies

that adolescents whom suffer from anxiety and depression are likely to attempt suicide, especially in severe cases.<sup>2</sup>

Various studies have demonstrated and quantified the association of Acne to increased risk of suicidal ideation, mental health problems and social impairment.<sup>3</sup> Depression is predicted to be the second most prevalent disease by the year 2025.<sup>4</sup> Various questionnaires have been used from time to time to determine the psychological effects of Acne. In the current study, we have used the Hamilton Depression Rating (HAM-D)<sup>5</sup> to determine the frequency of depression in patients suffering from Acne. HAM-D is used for assessing severity of depression in adults. The original version consists of 17 item questionnaire scored

on 3-5 point scale relating to mood, feeling of guilt, suicidal ideation, agitation, anxiety, weight loss or somatic symptoms. Scoring from 0-7 is considered as normal and scoring of 20 and more indicates moderate, severe, or very severe depression.<sup>5</sup>

## MATERIAL AND METHODS

This was a descriptive study conducted at the outpatient Department of Dermatology, Bahawalpur Victoria Hospital, Bahawalpur from September 2013 to November 2013. Informed written consent was taken from all the patients, seventy patients of acne diagnosed by consultant dermatologist were included in this study. The severity of acne was determined by Global Acne Grading System. The patients from both genders, with the age ranging from 16-40 years were included in the study. The patients with concomitant dermatological, psychiatric diseases and on systemic isotretinoin were excluded. The patients fulfilling inclusion criteria were administered Hamilton depression rating scale (Annexure I). The score obtained from each patient was used to categorize depression as mild, moderate and severe. The severity of depression was according to the scores on the (HAM-D). Normal mood ranged from (0-7), mild depression (8-13), moderate depression (14-18), severe depression (19-22) and very severe depression (>23). The data recorded was analyzed using SPSS version 16.

## RESULTS

We included 70 patients in the study, among those 14 (20%) were male and 56 (80%) were females. 34.3% of the acne patients were of age 16-20 years, followed by 30% patients were from the age range 21-25. As for their marital status most of the patients were single 41 (58.6%). In terms of their residential status, 75.7% were residing in the cities. Students were the mostly affected group that was found to be 40%. These results are shown in (Table-I).

Table-II, show the depression scores, mild depression was seen in 26% patients, out of which 18 (18%) were females and 8 (8%) males. Severe depression was diagnosed in 14 (14%)

patients, among which 11 (11%) were females & 3 (3%) were males. Very severe depression was seen in 18 (18%) patients among which 16 (16%) were female and 2 (2%) were males.

| Characteristics       | Frequency (Percentage) |
|-----------------------|------------------------|
| <b>Sex</b>            |                        |
| Females               | 56 (80.0%)             |
| Males                 | 14 (20.0%)             |
| <b>Age Groups</b>     |                        |
| 16-20                 | 24 (34.3%)             |
| 21-25                 | 21 (30.0%)             |
| 26-30                 | 11 (15.7%)             |
| 31-35                 | 12 (17.1%)             |
| 36-40                 | 2 (2.9%)               |
| <b>Marital Status</b> |                        |
| Single                | 41 (58.6%)             |
| Married               | 28 (40.0%)             |
| Widow                 | 1 (1.4%)               |
| <b>Locality</b>       |                        |
| Rural                 | 17 (24.3%)             |
| Urban                 | 53 (75.7%)             |
| <b>Education</b>      |                        |
| Uneducated            | 8 (11.4%)              |
| Primary               | 5 (7.1%)               |
| Middle                | 4 (5.7%)               |
| Metric                | 16 (22.9%)             |
| F.A                   | 9 (12.9%)              |
| B.A                   | 13 (18.6%)             |
| M.A                   | 11 (15.7%)             |
| MBA                   | 1 (1.4%)               |
| <b>Occupation</b>     |                        |
| Unemployed            | 4 (5.7%)               |
| Student               | 28 (40.0%)             |
| House wife            | 20 (28.6%)             |
| Employed              | 14 (20.0%)             |
| Farmer                | 4 (5.7%)               |

Table-I. Demographic Data (Subject Characteristics) (n=70)

| HAM-D                         | Frequency (Percentage) |
|-------------------------------|------------------------|
| 0-7 = Normal                  | 10 (14.3%)             |
| 8-13 = Mild Depression        | 18 (25.7%)             |
| 14-18 = Moderate Depression   | 21 (30.0%)             |
| 19-22 = Severe Depression     | 10 (14.3%)             |
| ≥ 23 = Very Severe Depression | 11 (15.7%)             |

Table-II. Hamilton depression rating scale (Ham-D)

## DISCUSSION

As the relationship between skin disease and psychological problems are becoming stronger,

psycho cutaneous disorders are dealt as a separate entity. Our results generally confirm the finding of previous studies that psychiatric disorders are higher in dermatological patients, which may arise as a complication or a consequence of primary skin disease.

Epidemiological studies reported prevalence of mental disorders to be 21% to 43% in dermatological patients.<sup>6</sup> In the present study, females (66%) were more affected as compared to males (22%). A study by Akten S et al<sup>6</sup> also showed that the adolescent girls suffer more negative psychological effects than boys. Regarding the different age groups suffering from acne and depression, Asad F et al.<sup>7</sup> has reported a higher frequency of anxiety and depression in patient aged below 20 as compared to those above 20. This finding was replicated in our present study where 34.3% of these patients were below 20 years of age. Similarly, in an international study by Purvis D et al<sup>8</sup> has also shown that young people especially secondary school students presenting with acne are at increased risk of depression, anxiety and suicidal attempts. The high prevalence of anxiety and depression amongst unmarried in this study is supported by similar findings in literature.<sup>8</sup>

However, Golchai J et al<sup>1</sup> conducted a study on comparison of anxiety and depression in patients with acne vulgaris and healthy individuals, in which the severity of anxiety and depression was not related to age, sex or marital status. These epidemiological findings in different studies may be due to difference in sample size, different age groups and occupations. Moreover, the scale employed can also influence the different prevalence.

In our study, mild depression was seen in 18%. 21%, of patients had moderate depression and 10% of patients had severe depression. Very severe depression was found in 11% patients.

Our results are comparable to study by Ahmed S et al,<sup>9</sup> who also showed similar percentages of patients suffering from mild, moderate and severe depression. An important finding, which

we have noted in our study is that severity of acne does not play a significant role in a change in the psychological status of a patient. Patients with mild disease can also develop depression. Similar findings have been reported by Kurtalic N et al.<sup>10</sup> The results of our study showed that adolescent females suffering from acne are particularly vulnerable to develop depression but there is no correlation between severity of disease and depression.

## CONCLUSION

Keeping in mind the recently developing evidence in literature, all the Dermatologists should pay due attention to the psychological state of the patient while clinically evaluating and treating the patients suffering from acne. The patients having co-morbid depression may show poor outcome to treatment and may have disturbed social and occupational morbidity and maladjustment. Concurrent depression may need proper treatment along-with the therapy for the primary presenting dermatological disorder.

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*Everyone wants the truth but no one wants to be honest.*

– Unknown –

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#### AUTHORSHIP AND CONTRIBUTION DECLARATION

| Sr. # | Author-s Full Name | Contribution to the paper                                                                                                               | Author=s Signature                                                                    |
|-------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1     | Naima Luqman       | Introduction and literature review, analysis of results, discussion and conclusion of results, preparation of manuscript of submission. |  |
| 2     | Niaz Maqsood       | Review of manuscript for submission.                                                                                                    |  |
| 3     | Wajih-Ur-Rehman    | Analysis of results                                                                                                                     |  |